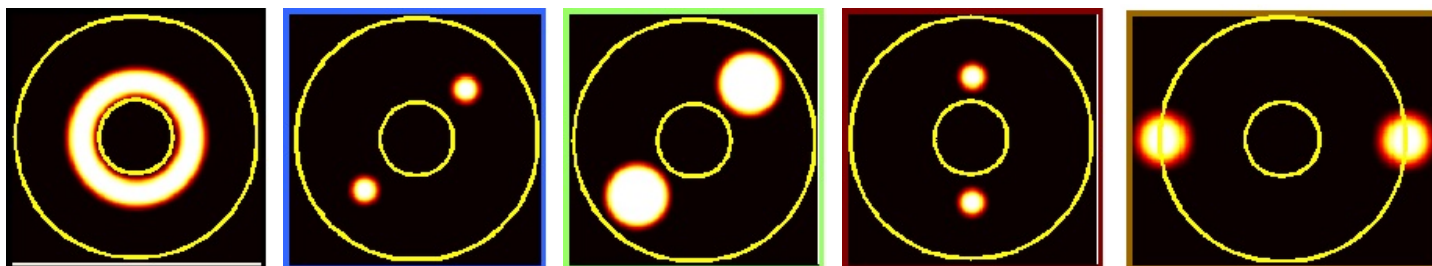


The World's Highest Resolution Projection EUV Lithography Tool

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The SEMATECH-Berkeley MET achieves its world leading performance through the precise manipulation of illumination coherence. Through the use of the unique scanner module and undulator radiation from the [ALS](#), lossless variable illumination can be achieved in patterns such as those pictured here.

Synthesized Pupil Fill Functions

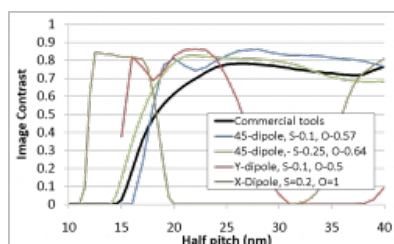


45-dipole, $S=0.1$,
 $O=0.57$

45-dipole, $S=0.25$,
 $O=0.64$

Y-dipole, $S=0.1$, $O=0.5$

X-dipole, $S=0.2$, $O=1$



This coherence control has been demonstrated experimentally at the BMET, as can be seen by comparing the predicted aerial images with actual printing results:

